



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,882	07/09/2003	Kamlesh Rath	COWA0003	2633
22862	7590	05/18/2007	EXAMINER	
GLENN PATENT GROUP 3475 EDISON WAY, SUITE L MENLO PARK, CA 94025			GONZALEZ, AMANCIO	
ART UNIT		PAPER NUMBER		
		2617		
MAIL DATE		DELIVERY MODE		
05/18/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/616,882	RATH, KAMLESH
	<b>Examiner</b>	<b>Art Unit</b>
	Amancio Gonzalez	2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 March 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-4, 7, and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majidi -Ahy (US Pat 7158784), hereafter "Majidi," in view of Bandeira et al. (US Pat 6728514), hereafter "Bandeira."

Consider claim 1, Majidi discloses a mesh access network (**see col. 8 lines 51-67**). Majidi discloses at least one base-station comprising a plurality of sectors (**see the abstract, col. 2 lines 3-34, col. 3 lines 32-38, col. 4 lines 19-24, col. 5 lines 9-18, figs. 1-5**). Majidi discloses each sector comprising of a plurality of terminal nodes (**see col. 8 lines 55-67, col. 9 lines 1-10**). Majidi discloses the terminal nodes *implicitly* comprising both indoor terminal nodes and outdoor terminal nodes (**see col. 5 lines 12-14, col. 8 lines 58-64, col. 3 lines 49-58**, where Majidi discusses customer

**premises equipment, thus referring to devices or nodes capable of performing in a premise, hence performing as indoor or outdoor nodes, including repeaters – see the abstract, col. 2 lines 23-26, col. 4 lines 15-18).** Majidi inherently discloses wherein the base-station sectors use different frequency bands that are located in alternate sectors of said base-station (see col. 5 lines 9-18, figs. 1-5, where Majidi discusses the system including cell multi-sectoring, which inherently utilizes frequency reuse schemes, that is, alternating different frequency bands between adjacent sectors, as is well known in the art).

Majidi discloses a plurality of nodes and a mesh network under a sector-partitioned base station (see col. 8 lines 51-67), but does not particularly refer to nodes arranged in a tree structure. Bandeira discloses nodes arranged in a tree structure (see col. 3 lines 35-59, col. 6 lines 27-36, col. 13 lines 63-67 and col. 14 lines 1-16, figs. 1 and 2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Majidi and have it include nodes arranged in a tree structure, as taught by Bandeira, thereby providing means for efficiently transferring large amount of multimedia content between various remote locations and a central location, as discussed by Bandeira (see col. 1 lines 13-28).

Consider claims 2 and 7, Majidi, as modified by Bandeira, teaches claim 1 above, and Majidi further discloses base station and repeaters (see Majidi: see abstract, col. 2 lines 23-26, col. 4 lines 15-18).

Consider claims 3, 4, and 13-18, Majidi, as modified by Bandeira, teaches claims 1 and 2 above respectively; Majidi further discloses a multi-sector cell and time-slot – TDMA- system (see Majidi: col. 8 lines 51-67, col. 10 lines 31-36); and Bandeira further discloses several level of repeaters (see Bandeira: col. 9 lines 63-67 and col. 10 lines 1-4).

Consider claim 12, Majidi, as modified by Bandeira, teaches claim 1 above, and Bandeira further teaches tree-structured network (see col. 3 lines 35-59, col. 6 lines 27-36, col. 13 lines 63-67 and col. 14 lines 1-16, figs. 1 and 2).

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majidi -Ahy (US Pat 7158784), hereafter "Majidi," in view of Bandeira et al. (US Pat 6728514), hereafter "Bandeira," as applied to claim 1 above, further in view of Bustamante et al. (US Pat 5809431), hereafter "Bustamante."

Consider claims 5 and 6, Majidi, as modified by Bandeira, teaches claim 1 above, but does not explicitly refer to frequency reuse. Bustamante discloses frequency reuse (see col. 6, lines 26-40). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Majidi and Bandeira and have it include frequency reuse, as taught by Bustamante, thereby providing a frequency reuse scheme in a cellular network for the purpose of increasing capacity and minimizing interference.

Art Unit: 2617

5. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Majidi -Ahy (US Pat 7158784), hereafter "Majidi," in view of Bandeira et al. (US Pat 6728514), hereafter "Bandeira," as applied to claims 1 and 7 above, further in view of Ngan et al. (US Pat 6973312), hereafter "Ngan."

Consider claims 8 and 9, Majidi, as modified by Bandeira, teaches claims 1 and 7 above respectively, but does not particularly refer to increasing capacity adding carrier. Ngan discloses increasing capacity adding carrier (see col. 1, lines 1-3; col. 5, lines 47-52). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Majidi and Bandeira, and have it include increasing capacity adding carrier, as taught by Ngan, thereby providing a frequency plan in a wireless network for the purpose of accommodating a greater number of users in a required moment at a determined coverage area.

Consider claim 10, Majidi, as modified by Bandeira and Ngan, teaches claim 10 above, and Majidi further discloses base station and repeaters (see Majidi: see abstract, col. 2 lines 23-26, col. 4 lines 15-18).

Consider claim 11, Majidi, as modified by Bandeira, teaches claim 9 above; Majidi further discloses a multi-sector cell and time-slot –TDMA- system (see Majidi: col. 8 lines 51-67, col. 10 lines 31-36); and Bandeira further discloses several level of repeaters (see Bandeira: col. 9 lines 63-67 and col. 10 lines 1-4).

Art Unit: 2617

***Conclusion***

6. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amancio González, whose telephone number is (571) 270-1106. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Art Unit: 2617

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amancio González  
AG/ag

May 12, 2007

NICK CORSARO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

*AG/ag*